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Report to the Chairman, Committee on Post Office and Civil Service, House of Representatives

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FEDERAL WORKFORCE

Pay, Recruitment, and Retention of Federal Employees

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United States
General Accounting Office
Washington, D.C. 20548

General Government Division
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February 10, 1987

The Honorable William D. Ford
Chairman, Committee on Post Office
and Civil Service
House of Representatives

Dear Mr. Chairman:

Available studies show that scientists and engineers, like many other employees in the federal government, are paid less in salaries than their counterparts in the private sector. You requested that we study the effects of this pay disparity by examining attrition rates and recruiting difficulties in the federal scientific and engineering community. You also asked that we obtain information on attrition rates in other occupations and federal recruitment problems in general.

As agreed with your office, we performed the requested analyses by obtaining information on pay, attrition, and recruitment for seven selected occupations—chemists, engineers, computer specialists, accountants, buyers, secretaries, and clerk-typists. To get this data, we interviewed officials in the Office of Personnel Management (OPM) and in the Department of Defense (DOD) and the National Aeronautics and Space Administration (NASA) which employ large numbers of scientists and engineers. We also reviewed federal and private sector studies on employee recruitment and turnover. Our work was performed during the period January through August 1986.

Comparison of Pay Differences and Quit Rates

By law, unless the President proposes alternative pay rates and Congress agrees, federal white-collar employees' salaries under the General Schedule are to be adjusted each year to maintain comparability with private sector salaries for similar levels of work. Comparability amounts are determined by the President's Pay Agent (the Directors of the Office of Management and Budget, OPM, and the Secretary of Labor) based on the Bureau of Labor Statistics' annual National Survey of Professional, Administrative, Technical, and Clerical Pay in the private sector. Frequent use of alternative pay rates has caused General Schedule pay to fall significantly behind the survey's findings on pay rates in the private sector. Fiscal year 1987 marked the ninth straight year that a President proposed, and Congress did not disapprove, alternative pay rates which were lower than the comparability adjustments indicated by the Pay Agent's analysis. From 1985 to 1986, the average pay gap determined by the Pay Agent for all General Schedule grades increased from 19.2 to

23.8 percent. However, the President and Congress agreed to limit the fiscal 1987 pay raise to 3 percent, effective in January 1987.

Although the Pay Agent's analysis shows that federal salaries lag those in the private sector, the exact size of the pay lag may be open to question in view of the concerns we and others have raised in the past about the design and coverage of the salary survey. A 1984 comparison by the Hay/Huggins Company, a management consulting firm specializing in private sector pay and benefits for the House Committee on Post Office and Civil Service, also concluded, using a different methodology than is used by the government, that federal salaries lagged, if by a lesser amount.[1] By either standard, we believe that the number of legislative proposals to authorize new pay and personnel systems is an indication of the dissatisfaction with General Schedule pay rates. In the 99th Congress, eight bills[2] were introduced to establish special pay and personnel systems for certain agencies or groups of federal employees. Inadequate pay and difficulty in hiring and retaining employees were factors cited in support of these legislative proposals.

Studies differ on the degree of correlation between pay and turnover but generally concur that, in addition to pay, a variety of organizational, personal, and economic factors influence separation decisions. Factors such as the state of the labor market, the particular occupation, and the age, sex, and education of employees affect attrition so that the occupation with the least favorable pay situation may not have the highest attrition. This was borne out in our study. For example, although chemists had the largest overall pay gap of the seven reviewed occupations, their "quit rate" was the lowest. At 2.3 percent, it was less than half the overall average General Schedule quit rate (5.2 percent) in 1985. Similarly, engineers had a large pay gap but a relatively low quit rate.

Conversely, clerk-typists and secretaries had among the smallest pay gaps of the seven occupations but the highest quit rates, as shown in table 1.1. Federal engineers at entry and mid-level grades receive special pay rates which exceed normal General Schedule salaries for other employees at the same grades for recruiting and retention purposes. Our

[1] Hay/Huggins Company and Hay Management Consultants, Study of Total Compensation in the Federal, State, and Private Sectors (Washington, D.C.: GPO, 1984). Hay found that federal pay lagged by 10.3 percent in March 1984 versus 18.28 percent found by the government. Hay also reported that if both pay and benefits were considered, federal compensation lagged by 7.2 percent.

[2] S. 1727, S. 2082, S. 2724, H.R. 3480, H.R. 4264, H.R. 4720, H.R. 4769, and H.R. 4917.

pay comparisons are based on data used in OPM's annual review of special salary rates for engineers and the Bureau of Labor Statistics' salary survey.

Table 1.1: 1986 Pay Gaps and Quit Rates

Pay gap range and Quit Rates in percent

Occupation	Pay gap range (varies by grade)	Quit rate
Chemist	27.9 to 50.7	2.3
Accountant	27.2 to 46.0	2.3
Engineer	19.4 to 46.0	3.3
Buyer	24.7 to 34.9	3.2
Computer specialist	5.9 to 29.1	2.8
Clerk-typist	10.1 to 11.1	13.8
Secretary	4.0 to 9.3	6.9
All General Schedule workers	19.2	5.2

The Congressional Budget Office in February 1986 reported that federal white-collar workers had a lower quit rate than did those in the private sector—4.9 in 1984 versus 10.9 percent. Among the nonpay reasons cited in that report that were believed to hold down federal attrition were (1) the lack of portability of civil service retirement benefits and (2) the fact that the federal workforce tends to be older and have more years of service. Agency officials told us that advancement opportunities, the nature of the work, and geographic location also affect employees' decisions to leave or remain with the government.

In response to a congressional request for information on recruiting and retaining top quality individuals for federal service, DOD reported in December 1985 that its employee quit rate was generally stable from 1977 through 1984 and that there was not a severe attrition problem in the Department's civilian workforce. But it also expressed concern that the losses tended to be concentrated among the better performers. DOD, which employs about two-thirds of all federal engineers, also studied the quit rate of its engineers from 1975 to 1985. It found that the rate doubled during this period as shown in table 1.2. In part DOD believes this was due to an influx of entry level engineers who customarily have higher than average turnover. However, DOD found that the quit rate increased for all age groups under 50.

Table 1.2: Defense Engineers' Quit Rates

Quit rate in percent

Fiscal year	Quit rate
1975	1.8
1976	1.5
1977	2.0
1978	2.4
1979	2.5
1980	2.4
1981	2.3
1982	2.2
1983	3.2
1984	3.3
1985	3.6

As a rule, agencies and OPM do not collect data on attainment of recruiting goals. Consequently, available recruiting information consists largely of anecdotal evidence. Based on the available information, some agencies are experiencing difficulty in recruiting and retaining scientists and engineers while others are not. However, there is common concern about the possible effects of the large and growing federal pay gap on recruitment and retention.

President's Survey of Agencies' Problems in Recruiting and Retaining Scientists and Engineers

In December 1985, the Executive Office of the President asked federal agencies to provide information on their recruiting and retention problems with scientists and engineers. Ten civilian agencies and three military departments responded. Of the civilian agencies, the Geological Survey, National Science Foundation, and Department of Transportation indicated that they had not had significant problems in recruiting scientists and engineers. The others, as well as the military departments, expressed concern about both the quality and quantity of people they were able to obtain. In addition to problems associated with pay, three of the civilian agencies mentioned other problems that contributed to their recruiting difficulties, such as a slow federal hiring process and a poor image of federal employment. The appendix to this report presents a brief summary of each of the agency's comments provided to the Executive Office on recruitment and retention of scientists and engineers.

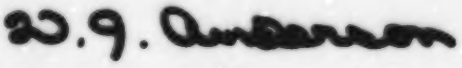
Agency Comments

We requested oral comments on this report from DOD, NASA, and OPM. DOD stated that all services were now experiencing difficulties in hiring the

quality of scientists and engineers they were seeking. Similarly, NASA officials expressed concern that the agency has serious and growing difficulties in recruiting and retaining quality people in key scientific and engineering positions. They said NASA has had to increase its recruiting efforts substantially because fewer candidates are accepting the agency's job offers. In addition, they believed that the Administrator of NASA should have authority to offer higher salaries for a few selected positions in order for the agency to compete effectively for key scientists and engineers. OPM suggested clarification of certain statements and data, and changes were made in the report as appropriate.

As arranged with your office, a copy of this report will be sent to the Chair of the Subcommittee on Compensation and Employee Benefits. Unless you publicly announce its contents earlier, we plan no further distribution of this report until 10 days from its issue date. At that time, we will send copies to the Secretary of Defense; the Administrator, National Aeronautics and Space Administration; the Director, Office of Personnel Management; and other interested parties upon request.

Sincerely yours,



William J. Anderson
Assistant Comptroller General

Summary of Agencies' Comments to the Executive Office of the President on Recruitment and Retention of Scientists and Engineers

Geological Survey, Department of the Interior - The Survey reported no significant current problems recruiting scientists or engineers but said it has had difficulty recruiting petroleum engineers in the past. The Survey said it was recruiting about 40 professional engineers each year, but was unable to hire three or four people a year it considered prime candidates because the Survey's salaries were not competitive, the jobs were located in a high cost-of-living area, or the Survey was unable to reach the candidate on a particular civil service register.

Bureau of Oceans and International Environmental and Scientific Affairs, Department of State - The Bureau, which employs both Foreign Service and civil service staff, said salary and a lengthy hiring process were reasons for the loss of many potential civil service employees.

Office of Research and Development, Environmental Protection Agency - The Office reported that it was usually able to attract enough candidates for its job openings, but found most were only minimally qualified. The Office cited examples where, despite special recruiting efforts, desired candidates withdrew their applications because of inadequate federal salaries.

Science and Technology Advisor to the Secretary, Department of Transportation - The Department said it had not experienced significant problems in recruitment or retention of high-quality employees. It reported some difficulties in recruiting entry level technicians in the Boston area because of competition from high-tech industry there.

National Bureau of Standards, Department of Commerce - The Bureau cited about 50 examples of technical, scientific, and engineering candidates or employees lost during the period 1981 through 1985 because salaries were inadequate.

Office of Energy Research, Department of Energy -The Office reported difficulty in filling engineering and high level scientific positions because of low government salaries. The Office also believed the quality of its recruits was lower than in the past and suggested that inflexibility in position classification and the slow federal hiring process placed the government at a competitive disadvantage.

National Oceanic and Atmospheric Administration, Department of Commerce - The Administration said that there were a number of factors contributing to recruiting and retention problems including inadequate salaries, difficulties and delays in the federal hiring process, a

perceived lowering of federal job security, and the poor image of research in the federal government.

National Science Foundation - The Foundation reported that the caliber of its scientific and engineering recruits remained high, but that it was becoming harder to recruit these people. It said top quality candidates were reluctant to leave their research for federal administrative positions, and federal pay lagged salaries in the academic community.

Department of Health and Human Services - The Department provided numerous examples where inadequate compensation for scientists, engineers, and physicians was causing recruiting and retention problems resulting in vacancies in several key positions.

National Aeronautics and Space Administration - The Administration stated that there is a growing general perception that the quality of its hires may be declining. It also said it was unable to hire as many recruits from the top engineering schools as in the past. Between fiscal year 1983 and fiscal year 1985, scientist and engineer losses, other than retirement, increased from 294 to 361 employees. All field installations experienced delays in filling vacancies. It noted that federal salaries and benefits were not competitive with those offered in the aerospace industry, including the agency's contractors. For example, it said that, despite extraordinary recruitment efforts, its attempts to fill computer-related positions at a research center in the Silicon Valley area of California were unsuccessful.

Department of the Army - The reported experiences of 11 Army components ranged from significant problems in hiring and retaining scientists and engineers, despite extensive recruitment efforts, to no problems because they had no vacancies. Difficulty was cited in recruiting electronic engineers, general engineers, physicists, computer scientists, and research psychologists, among others. However, the overall quality of newly hired scientific and engineering personnel was considered good or outstanding by several of the components.

Office of the Chief of Naval Research, Department of the Navy - Research and development centers indicated that the lower salary levels for federal scientists and engineers were a great impediment to recruiting efforts. More recent hires were generally thought to have a lower grade point average than in the past. One research laboratory said that it was unable to fill 94 positions during 1984 and 1985 because (1) in 23 recruitment actions there were no applicants; (2) in 6 of the

recruitment actions, the candidates did not meet requirements; and (3) in 65 of the actions, job offers were declined because of inadequate federal salaries.

Department of the Air Force - The Department reported moderate success in recruiting and retaining scientists and engineers. It said it attempted to fill 2,445 positions in the engineering field during a 1-year period and filled 1,792 positions—a recruitment success rate of 73.3 percent. To do so, it made 2,737 job offers, of which 65.4 percent were accepted. It said that it does not have data that would conclusively measure the quality of the recruits, but if average starting salary is an indicator, the federal sector obviously has difficulty competing for graduates of the best schools even with special pay rates.

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